

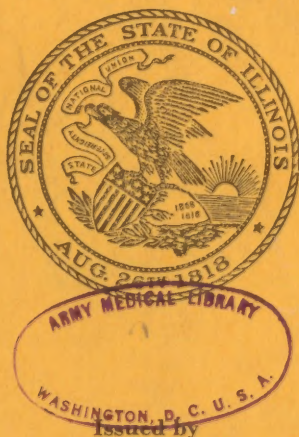
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# Has Your Child a CLEFT PALATE?

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The story of the cleft palate — of how  
children who have this condition  
may be helped medically  
and educationally.



Issued by  
**VERNON L. NICKELL**

**SUPERINTENDENT OF PUBLIC INSTRUCTION**

**SPRINGFIELD, ILLINOIS**

**In collaboration with**

**THE ILLINOIS COMMISSION FOR HANDICAPPED  
CHILDREN**

**211 WEST WACKER DRIVE**

**CHICAGO, ILLINOIS**



# Has Your Child a Cleft Palate?

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ISSUED BY  
VERNON L. NICKELL  
SUPERINTENDENT OF PUBLIC INSTRUCTION



Has Your Child a Cold or Flu?

Children's Health  
and Nutrition  
Foundation

Dr. Robert H. Wright  
President, Children's Health  
and Nutrition Foundation

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## FOREWORD

**S**PECIAL Education of physically handicapped children is predicated on a program of medical treatment. In caring for the total child both are essential.

This circular is of special value to parents and teachers who have the responsibility of guiding the child who has a cleft palate. It is so written that the parent may have a definite picture of what can be done medically and educationally to help the child. It clearly indicates the value of early medical and surgical advice. It gives emphasis to the need of special speech therapy, and it shows the need of careful attention to the educational, social, and emotional guidance of the child.

The Superintendent of Public Instruction is professionally interested in this problem of the child with the cleft palate both educationally and medically. The program of special education for exceptional children is a direct responsibility of his office. He also is a member of the Illinois Commission for Handicapped Children.

It is appropriate to mention here the fine services being rendered in Illinois by the Division of Services for Crippled Children. This is a State agency interested in the medical care and treatment of physically handicapped children, rendering a special service to children with cleft lips and palates. Its medical program is carried out in close cooperation with the special re-education program of the office of the Superintendent of Public Instruction. The Division may be contacted at 1105 South Sixth Street, Springfield.

Special thanks is given to the authors of this circular for its preparation and for making it available for distribution to the people of the State of Illinois. Copies of this circular may be obtained gratis from the Superintendent of Public Instruction or the Commission for Handicapped Children.

VERNON L. NICKELL

Superintendent of Public Instruction

June, 1945

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## INTRODUCTION

**T**HIS is the story of the cleft palate, and of how children who have this condition can be helped. It tells you not only what to do, but how and why you should do it, and this information will guide you in helping your child. It also contains suggestions as to whom you should consult for surgery, for speech re-education, and special dentistry. You will find suggestions for handling the various problems that arise as your child grows older. We know that you are eager to assist your child—in order to do this you must learn certain facts about the cleft palate—and that's why we have written this book for you.

*It is possible through patient reeducation to improve the speech of the child with a cleft palate, even when trained assistance is lacking.*





## CHAPTER I

### WHAT IS A CLEFT PALATE?

**I**F you run your tongue over the roof of your mouth you will feel bone, covered by a thin layer of tissue. This is called the hard palate. The back or soft palate is not bony and moves, as you can tell by touching it with your finger. If you look in to the back of your mouth with a mirror while you say the sound "ah" you will see that it moves; you will see, too, that the hard palate, or the front part, does not move. You must keep these two parts of the palate in mind as we tell you of the cleft palate for many times the hard and soft palates will be mentioned as though they were separate, when actually they are one—the front and back part of the roof of the mouth.

Why must we have this palate? Why does the back part move? Why is the front hard? What problems occur when there is something the matter with the palate? These are the important questions to you. We will try to answer them so that you can decide what can be done about a cleft palate that might exist in your family.

The palate separates our nose from our mouth so that they can work separately. As you know, we breathe through our nose and we eat with our mouth. If there were not such a divider as the palate, the food we eat for nourishment, especially the liquids would pass out through our nose. Also, the air we breathe through our nose would pass out of the mouth rather than into the lungs where we need it.

The soft palate hangs down into a finger-like bulge called the uvula. It is commonly believed that this is the important part of the soft palate that serves to close off the nose from the throat, but, this is not completely true since this closing off is done by the coming together in a circle of the muscles at the top of the throat and the soft palate, somewhat like the closing of a drawstring tobacco pouch or a lady's old fashioned purse. You cannot see this action because it occurs above the level that can be seen by looking into the mouth.

Having seen what a palate is and why we need one, let us go back to the first question—what is a cleft palate and why must

we be concerned about it? In simple language, a cleft is an opening or a hole of some kind through an otherwise solid wall. So a cleft palate is a roof of a mouth with a hole or opening through it. It must be remembered that the failure of the palate to join or to grow is an accident of nature. No blame for this can be placed upon the parents for it occurs as frequently in the rich as in the poor, in large families and in small families, in well babies and in sick ones. Its appearance at all is one of nature's faults—no change of diet or medical attention or personal care by the parents could possibly have avoided it. The openings that are seen in palates are of all sizes and shapes. (See illustration.)



At other times the whole roof of the mouth is gone, or the soft palate may be divided and unable to close off the nose from the mouth. No matter what the size or shape, this defect or growth usually causes a great deal of trouble to the infant that has one. He may have trouble eating because he cannot draw in his early liquid food or because eating interferes with his breathing. Because he does not eat enough he may not gain enough weight or grow properly.

Other problems are common to children with cleft palates. For instance, in order that our ears should work at their best, so that our hearing should be normal, we have, among other things, a little tube that runs from the throat to the ears. This tube cannot be seen but it can be examined by a physician. Its pur-



pose is to keep the air pressure in the ear itself at the same level as the air pressure outside of the ear. When this is not true and the air pressure inside is more or less than the air pressure outside, the ear feels full and stuffed up and some hearing is lost. It is important that we be able to open this tube when we swallow food, or when we descend rapidly in an elevator or an airplane. This tube is kept closed most of the time and is only opened to ventilate the ear and to change the air pressure. The child with a cleft palate is liable to have two problems that concern this tube and that therefore concern hearing. First, some of the muscles that open the tube when we need it opened start in the soft palate and if that is not complete these muscles may not act and the tube may therefore be difficult to open. Secondly, this tube must be kept clean from food particles, dust or germs, for if they lodge in the tube and remain there they cause infections or inflammation that will affect the ear. Naturally, most people breathe through their nose and the nose is built to clean the air before it passes by this tube. The child with a cleft palate, however, frequently breathes through the mouth and the dust and germs are carried into the mouth and around the opening of the tube. Also, when we have a roof to our mouth the food we eat never gets near the part of the throat in which the tube is located, but when the roof of the mouth is missing or not complete a good deal of our food is pushed up into that area. So you can easily see how the child with a cleft palate must be guarded against ordinary hearing infections for these, plus these special problems, may lead to very serious hearing difficulties. Then, of course, all the problems in speech and in general, of the deafened, will be added to his other problems.

Another problem common to the child with a cleft palate concerns his teeth. As you can recall from our description of the normal palate, the front part is bony and hard. This helps to keep the teeth in their proper position. A cleft through the dental ridges in the front of the mouth as well as through the palate, interferes with the growth of the teeth by distorting and turning them out of line. Sometimes teeth are missing at the place of the cleft, and at other times the teeth that should grow in that space are pushed aside and grow in other places. These dental conditions are the cause of difficulties for the child. They not only detract from his appearance but interfere with proper chewing and speech. This means that teeth that are out of position because of a cleft in the dental ridge do not do their job as well as they should and the child suffers as do any of us with teeth that are not working effectively. The advice of the expert dentist is needed to correct this condition.



It is unfortunately true that children who do not get a good start in life suffer for it in more ways than one. The first five years of life are the most important, for it is during this time that the child's mind is forming. Speech must start at an early age; the child must be aware of his surroundings; he must hear the voices of his family; he must feel well and be alert. The child with a cleft palate begins life under difficulties. Because of his physical disability he very often is slow in his development and all through life may be handicapped by this slow start. Because he may be slow in learning to eat, slow in growing, slow in understanding the speech of others, and slow in becoming aware of his surroundings, he will very often be thought to be mentally slow. His early handicap may thus affect his entire school life as well as his adult life after school. Certainly it is easy to understand how the child with this poor start in life will find it hard to get along with other children. His speech may be difficult to understand; his general development may be slow. He may find other children his age going ahead and doing things that he is not able to do. His playmates may not accept him as an equal. Children, because of their lack of knowledge, are often cruel towards other children that are in any way different in speech, action or appearance. The child with a cleft palate who is constantly being criticized by other children and corrected by adults may feel that he is a failure and so prefer to be by himself and to play alone.

In this chapter we have shown you what a cleft palate is and what difficulties are present because of it. Certainly from this you can see that something must be done. We will describe in the next chapter what you can do to avoid many of these problems.

---

## CHAPTER II

### WHAT TO DO ABOUT A CLEFT PALATE

#### A. OPERATIVE

**Y**OU should consult your surgeon about the repair of your child's palate. Your doctor will advise you to visit a good specialist in cleft palate surgery. If this has not been done, ask him about it now; it is most important.

The surgeon whom you consult will tell you what you need to know about the various stages of the operation. He will use

all the tissue that is available to close the opening through the palate and to make as efficient a soft palate as is possible. You are completely and properly dependent upon his ability and his advice. The surgeon must operate; the palate will not grow together by itself. The time for operating is his problem. It depends upon many factors only he can know, such as the general health of the child, the seriousness of the problem, and the condition of the tissue with which he must work. Each case of cleft palate is different from every other case, and the surgeon's decision rests upon his wide knowledge of the problems that may be present. If, in his opinion, the operation can be done, he may decide to operate in the first year; or for any one of many reasons, he may postpone the operation until a later date. Whatever his decision may be, it should be considered as final.

## B. POST-OPERATIVE

After the final operation—for more than one may be necessary—the child should have a roof to his mouth, a hard and soft palate. That is very often all the operation itself can do. In most cases that is not enough. As you remember from chapter one, the nasal passages in the back of the throat are closed off only when the soft palate moves backward during eating and speech. The operation can give the child this soft palate, but training is needed to make that soft palate move effectively. Just as the muscles of an arm that has been broken and mended need retraining before normal use is restored, so the mended muscles of the soft palate need training. Therefore, before they will do their work, they must be exercised. In normal speech most of the air stream is sent through the mouth rather than through the nose. An un-operated cleft palate or an operated stiff palate allows the air to escape through the nose. The result is poor speech, speech that is not clear, speech that is nasalized. What can you do about it? You can do these three things: first, if the surgeon advises you, massage the palate to reduce the extra scarring that always follows an operation; second, exercise the soft palate muscles; third, teach the child how to make the sounds that are not correctly made in his speech.

### 1. MASSAGE

A mother can very easily be taught how to massage a palate by a doctor or visiting nurse. The following set of rules are simple to follow, without further instructions if that is impossible for you to obtain.

*First.* It is very important that you have clean hands and nails and that the nail on the first finger be very short so that there is no danger of accidentally scratching the palate during the massage.

*Second.* Place this finger firmly on the palate just above the last tooth and while pulling upward, push backward toward the middle of the palate. Stop there, do not cross the midline. Be careful to keep your finger on the soft palate close to the edge of the hard palate. It isn't necessary to go far back because the muscles which lift the soft palate are along the bony edge of the hard palate and if you go further back you only gag the child. This pulling-pushing motion is repeated four or five times on each side of the palate.

Let the child then rest a moment.

*Third.* Place the finger on the center of the soft palate, rotate it firmly, pushing strongly upward and backward. Don't be afraid to use firm pressure, you will feel the pull but there is nothing to fear because the palate will not split open. This technique has been used in hospitals for many years and there has never been any difficulty resulting from it.

Remember that the child has had a mouth operation and may fear anything that touches his mouth, so to gain his confidence for this massage you must have endless patience. We suggest that you make a game out of it or that it be done in a very business-like manner without comment just as you wash the child's teeth. After a short while he will become used to it and will not gag or complain. Do not be alarmed if he does gag for even this is helpful to him. If this massage is to be of greatest value to him it must be done at least four or five times a day, five minutes each time and should be kept up for a whole year. You can do it any time of the day but wait for at least an hour after meals. As a result of the constant massaging the palate becomes red. It begins to feel thin and soft rather than stiff and thick, as the scar tissue gradually wears away. The muscles become freely moveable and more active.

## 2. TESTS FOR NASALITY

There are several simple tests which can tell you how well the palate is working. Use these tests often so that you can judge the effects of the massage and the exercises. It is well to familiarize yourself with the results of these tests by trying them first on yourself.



1. Hold a mirror directly below the nose and breathe through the nose with the mouth closed. Notice the thick clouding on the mirror, caused by the air which has been breathed out from the nose. Now blow out through the mouth; the mirror should be clear. Keeping the mirror in the same position say a word containing the nasal letters, m, n, or ng, like "mama," "noon," or "sing," and notice that the mirror again clouds. Once more holding the mirror in the same position pronounce words that do not contain the nasal sounds, words like "cake," "papa," "happy," "baby"; this time the mirror should not cloud. Try this test on the child; his results should be the same as your results. However, due to his inability to close off the nose entirely, there may be some clouding. The amount of clouding on the mirror is a measure of the amount of closing.

2. Another simple test is to have the child place his tongue between his lips and close the lips tightly, then have him inhale air through the nose strongly. If the palate is working, you will hear a snorting or snoring sound. If the palate is not working, no sound but the rush of air will be heard. (Paget)

3. This is as much a game for blowing as it is a test. Take two cardboards about the size of a book cover, place one under the nose touching the upper lip and extending straight out and away from the child's face. The other in the same position but touching the lower lip so that the child in blowing can either blow along the upper or lower one. Place a small object on each like a ping-pong ball, a feather, or any similar light object (see illustration).



As the child blows the amount of nasal air can be told by the movement of the upper object and the amount of oral air stream by the movement of the lower one. As a game, this makes a

fine method of obtaining the child's attention. This should be used, however, only after some success has been achieved in blowing.

Remember that it is of little value for you to look constantly into your child's mouth, since an untrained person cannot judge accurately the amount of movement of the soft palate.

### 3. EXERCISES

The movement of the soft palate that is important in speech is upward and backward to meet the bunched muscles at the back of the throat and there close off the nasal passage-way. Massage as advised in the preceding section helps make the stiff and non-moving soft palate become soft and moveable. After the massage has been begun and the palate is beginning to show movement, other measures must be used to train the palate so that it will move during the acts of eating and speaking. This movement must be natural and easy to do so that the palate will close without effort when the child needs a closed nasal passage, that is, when he wishes to eat or speak.

It must be remembered that the soft palate at rest is relaxed and does not close off the nose—it is only with the effort of raising the palate that this happens. In speech the palate moves upward for every oral sound and remains in its relaxed or down position for only the nasal sounds of m, n, and ng. It is to be expected that months and months of exercise are going to be necessary to succeed in this. Patience and practice will be required both on your part and the child's. The act of raising the palate is so important to speech that almost any effort that is required to get it done is worthwhile, for nasalized speech is both unpleasant to hear and difficult to understand. Blowing is the one exercise that is easy and that can be enjoyed as a game while doing a great deal of good. This requires a strong stream of air coming through the mouth and so resembles speech. This air stream can only come out of the mouth if the soft palate is being raised and the nose closed off, so for our purpose, blowing is a perfect exercise for soft palate movement. A cleft or an inactive palate allows the air stream to go out through the nose rather than through the mouth. Therefore we must take care not to begin our practice until the palate is repaired or until there is some movement in the soft palate.

#### *For the Very Young Child under Three Years of Age*

The child of this age may not know what blowing means and if so will need to be taught how to blow. The very young child with a cleft palate may actually withdraw from blowing because

it concerns putting something either in or to the mouth and his oral memories are all painful. In either case do not force the issue. Blow matches out in front of him, blow water through a firm straw, or dry cereal out of a dish while he is watching, and without any other suggestion on your part, most children will want to join in the fun. If this is not enough to overcome his reluctance, have other children either from the family or the neighborhood, do these things when the parents are not present. Keep in mind that you should not urge the child to blow, merely show him how much fun he can have by doing as you do. Children learn through imitating others—this is just as true of blowing as it is of other things that the child learns. When he has learned how to blow, keep him well supplied with simple blowing games such as whistles and toys that are simple to blow. Have him blow out all the matches that are lit in the house when he is around, show him how to blow hair on his arms, have him blow his dry cereal out of the plate after breakfast. Any and all types of blowing are helpful. Remember that the blowing must be on a very simple level for this age group. Avoid failures in blowing for this leads to discouragement and a discouraged child will stop doing the things you want done.

You must be cautioned about one thing in the early training of your child. The palate will not move and blowing will not be of value as an exercise if the child's nose is held while he blows. The palate movement occurs only when there is nothing else blocking the air stream. Only once in the child's whole course of therapy is this permitted and that is when the child first attempts to blow but cannot because his palate has too little movement to block the air stream. It is better if the child can learn without holding the nose but if you must, do so at the very beginning, do it only once or twice, never more than that and then only slightly. If the child blows too much the increased amount of air that is breathed in may make him dizzy. This will not harm him in any way but you should stop him before he reaches that stage. Give him a rest between efforts. As to the amount of blowing for these young children, there is no time limit, yet it should be done every day for as long as the child will do it.

#### *For Children Between the Ages of Three and Twelve*

If the exercises are just being started during these years it is wise to begin with the same very simple blowing exercises that the younger child starts with as outlined above. Proceed to more interesting and more difficult blowing as soon as possible for more movement is secured with the toys and games that are harder to blow. The children in this group will need a great deal of en-



couragement for as their outside interests grow they will not be satisfied to keep blowing the very simple things that the younger child enjoys. For this group the bubble pipe and the toy instruments are excellent. Balloons should only be used if they are



easy to blow. If you use balloons, blow them up once or twice before giving them to the child to try. When the child is able to understand the reasons for blowing, he often will not mind substituting these play blowing toys for other babyhood playthings. Usually a child must be at least of school age before he can understand. There is a very definite necessity in this age for keeping the child at the job, and although appealing to their reason may work, it is usually found that keeping the blowing on a play side is best. It is wise to keep the child at one type of blowing at a time until he tires of it. This will keep him interested as you add new toys. Any exercises that must be done for a long time get tiresome, so constantly praise the child's efforts and encourage him to keep it up.

Exercises at this age level should be done for at least a half hour each day. This can be in several short periods or one long one, as long as it is done daily. Whenever possible, have the child do his blowing in your presence for this will keep him interested and you can guard against his holding his nose while blowing. This should never be allowed in this age group.

#### *For Children Above Twelve*

When the task of blowing is started at this age, little difficulty should be had in obtaining cooperation. Explain the necessity of doing the exercises and what is expected from the

child. Provide blowing instruments that will interest him and keep a watchful eye on the amount of practice done. Sometimes you may have to start with simple blowing but after a short time you will be able to change over to regular blowing instruments.



Balloons, junior-sized musical instruments, and when the child is able to do so, even regular adult-sized musical instruments. If the community has a school band, the study of any wind instrument is an excellent means of providing interesting blowing. Where a school band is not available, private practice on such an instrument should be encouraged. This is best done if the child takes regular lessons but where this is not practical, even home-study lessons by mail are valuable. The important thing is that he blow every day for at least an hour. It is not wise to provide an instrument without lessons of some kind for just toneless blowing will soon become so monotonous that the child will discontinue his efforts. When such instruments are being considered, we suggest that the child start with the mouth organ or the tonette and progress to the reed-type such as the clarinet, or the saxophone rather than the horns. These latter, the cornet, trombone, or French horn usually require a stronger flow of air than the average cleft palate child can supply.

Although we have suggested specific types of blowing, those mentioned are only suggestions. Any blowing that is done daily through the mouth is valuable. Care should always be taken that the child does not try blowing tasks that are too difficult for him for this will only result in withdrawal on his part and this must be avoided at all costs.

Do not be alarmed when you notice that the child's efforts seem to be in vain when he has a cold—actually the palate does

not work for the cleft-palate-child during this time and all through his life his speech will be less distinct when he has a cold. There is nothing that you can do about this other than to keep him as free from colds as possible. Discontinue his blowing exercises during the active stages of his cold and go back to them as soon as the cold has passed through its most severe stages.

It is very rare indeed that a child will acquire normal speech without exercises and massage. Do not wait until you are sure that the speech is going to be defective. Nothing can be gained by waiting. Every operated cleft palate can be benefited by massage and exercises—begin the training early. Waiting makes it more difficult to secure proper movements.

#### 4. SPEECH REEDUCATION

The third step in the reeducation of your child's speech is training him to produce the sounds that make up our language. This is necessary in most cases because a child who has learned to talk with a cleft palate will continue to talk the same way after the cleft is closed. Speech habits are a result of learning and the operation will have little effect on them therefore retraining is necessary. *The earlier the retraining is begun the easier it will be to correct and improve the habits which cause the errors in speech.*

The different sounds of speech are formed by the tongue, the lips and the jaws assuming different positions. For instance, the sound "P" as in "Peter," is made by closing the lips and then opening them, while for the sound of "t" as in "took" put the tip of the tongue to the roof of the mouth, thus preventing air from escaping until the tongue is dropped. Every sound is made by a particular position which the organs of speech (tongue, jaw, lips, soft palate) must form correctly.

The cleft palate child tends to touch the lower lip to the upper teeth instead of the upper lip in such sounds as "P" in "Peter" and "B" in "Baby." The tongue is often protruded in attempts to sound the "L" as in "Lady" and the "T" as in "To" or the "D" as in "Do." Frequently substitute sounds are made for those that the child finds it difficult to make.

In order to help you understand more clearly what the sounds of normal speech are, we have listed them for you and have given you a description of how they are made. Study the list. Pick out the sounds that your child needs to work on. Study the sounds and with the aid of a mirror, watch yourself make them. Listen to them. Teach your child by having him imitate you and by having him listen.



Have the child seated across from you—tell him the name of the sound, for example, “P” as in Peter. Show him how your lips come together to make the sound; have him try to do as you do; have him, if necessary, look in a hand-mirror while he tries this. Do not spend much time trying to explain to him the position of the sound—only show it to him. Then make up lists of simple words containing the sounds you will need to practice on. Follow the examples given on the following pages. These will serve as a beginning and a pattern for you to follow.

Have the child listen to you and repeat after you the words on these lists until he can make them correctly by himself. The proper order of doing this is to work first on the words in which the sound appears at the beginning as “P” as in “Peter.” Then give him words in which the sound occurs in the middle such as “P” as in “happy” or as in “apple.” When he has learned to make the sound in the middle of a word, give him words in which the sound occurs at the end, such as “p” in “cap.” When he has learned to make the sound in all three positions then have him practice sentences, containing words that illustrate the sound. Examples of these sentences for each sound can be found on the following pages. When these are easily and correctly spoken, work on the verses. Then and only then start correcting him when he uses the sound incorrectly in his daily speech. Do not hurry him—be sure he has learned a sound before you pass on to another. Do not correct him too often in speech—be encouraging. Compliment him when he does well, at least as often as you correct him for doing poorly. Remember that you must not spend much time showing him the position, for if you do he will try too hard to make the correct position that he will be unable to put the sound into words. The rest of the training (after the showing of position) is mostly ear-training and that is all important. Be slow and patient with your teaching, make a game of it if you can. Do not spend too much time on the lessons each day, a few minutes for the very young children; increased to half hour period when the child is older and able to stay interested for that length of time. Watch your own speech and the rest of the family’s for children learn a great deal by indirect imitation. Use scrap books, picture books, blocks with letters on them, or toys that make particular sounds to stimulate the child. Whatever you do, be patient and hopeful for proper speech is as difficult to learn as it is to teach.

## CHAPTER III

### SOUNDS OF ENGLISH

Speech is made up of two kinds of sounds, the vowels and the consonants. The vowels are made up by the passage of air through the mouth without blocking or interruption by the lips, the teeth or the tongue. Consonants are sounds that are blocked or interrupted by the closing either completely or partially of the mouth passageway by the tongue, teeth or lips. So "e" as in "eat" or "a" as in "aim" are vowels and "p" as in "Peter" or "k" as in "Katy" are consonants. Many books have been written about sounds but it is not necessary for our purpose to know much more about them than how to make each one and how to teach it. Before studying the following lists remember that the accuracy of the sounds you make depends on the accuracy of your hearing them. The following descriptions of each sound are for you to read so that you will know how each sound is made. Do not use these descriptions in teaching the child with poor speech, teach him by telling him how, by showing him how, and by constantly repeating the correct sound for him to hear and imitate.

#### A. CONSONANTS

These are closed sounds, that is, the air stream on its way out in the process of speech is changed by the position in which the tongue, lips, soft palate or jaw are placed. The order in which the consonants are listed again follows their position in the mouth from front to back.

The consonants are grouped wherever possible into families when the position for each sound is more or less the same. The family name is given for each group.

## 1. LIP SOUNDS

In which the air stream is blocked by closing the lips.

P—B—M

Made by rounding the lips.

Wh—W

*P*

pet	apple	cat
pie	paper	stop
pull	upon	help

We pulled upon the paper.

Apple pie is my pet.

### THE SONG OF THE POP-CORN

“Pop—pop—pop!”

Says the pop-corn to the pan ;

“Pop—pop—pop !

You may catch me if you can !”

“Pop—pop—pop !”

Says each kernel, hard and yellow ;

“Pop—pop—pop !

I’m a dancing little fellow !”

“Pop—pop—pop !”

I can whirl and skip and hop !”

Pop—pop—pop—pop !

Pop ! Pop ! POP !

—From : “Choral Speaking Arrangements for  
the Lower Grades” by

LOUISE ABNEY

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## B

boy	baby	club
box	rabbit	tub
butter	about	crab

The boy caught the rabbit with his club.  
He carried the tub about in a box.

### THE BUG AND THE BEETLE

Little black Beetle said one day,  
"Little bug, you're in my way!  
Little bug, don't bother me,  
I'm a big bug, don't you see,"  
Little Bug said, "I can do  
Quite as many things as you."

—Unknown

## M

A nasal lip sound made by closing the lips lightly and allowing the voice to pass out through the nose.

man	summer	room
meet	woman	drum
moon	small	from

The man lived in a small room.

The summer moon looked like a drum.

### MY TOP AND I

My top is humming a happy song.  
It hums and hums the whole day long;  
M-m-m, M-m-m, M-m-m.

It dances in a merry ring;  
Its music makes me want to sing;  
M-m-m, M-m-m, M-m-m.

—From "This Way to Better Speech"  
ABNEY—MINIACE  
World Book Company

## WH

(When correctly made this sound is turned about and we say HW)

(This sound appears only at the beginning of words)

white                  which                  when

When the white moon shines.

## WHISTLES

I want to learn to whistle.  
I've always wanted to.  
I fix my mouth to do it  
But the whistle won't come through.  
I think perhaps it's stuck,  
And so I try it once again  
Can people swallow whistles?  
Where is my whistle then?

—Dorothy Aldis

---

## W

See vowel glides.

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## 2. LIP-TEETH SOUNDS

In which the lower lip touches the upper teeth lightly.

**F**

feet	after	if
fire	before	calf
fun	soft	dwarf

After the calf had its fun.  
The soft dwarf sat near the fire.

### GOLDFISH

I have four fish with poppy eyes,  
Awfully poppy for their size—  
Perhaps they're poppy from surprise.

For after frisking in a sea,  
Fish must find it queer to be  
Looking through a glass at me.

—Aileen Fisher

---

**V**

very	never	five
valentine	over	live
voice	leaves	have

Valentine day lives over and over.  
The five boys never had better voices.

### PLAYING AIRPLANE

Airplane, airplane, in the sky!

V \_\_\_\_\_  
Flying, flying up so high!

V \_\_\_\_\_  
Take me with you when you fly!

V \_\_\_\_\_  
I would like to sail the sky!  
V \_\_\_\_\_

—BARROWS AND HALL, "Games and  
Jingles for Speech Development."  
Expression Co.



### 3. TONGUE-TEETH SOUNDS

In which the tip of the tongue is placed between the teeth, lightly touching the upper ones.

#### *TH'*

thank	everything	path
three	anything	bath
think	nothing	earth

Thank you for everything.  
Audrey thinks three times.

#### THE OLD GRAY GOOSE

An old gray goose am I.  
Th! Th! Th!  
I stretch my neck and cry  
At puppies passing by!  
I like to make them cry!  
Th! Th! Th!

—BARROWS AND HALL, "Games and  
Jingles for Speech Development."  
Expression Co.

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#### *TH"*

there	mother	breathe
they	brother	smoothe
those	father	bathe

There were mother and father.  
Brother breathes deeply after bathing.

#### MONKEY TALK

Little monkey in the tree  
This is what he says to me  
"They, they, they,  
Thee, thee, thee."

Monkey jumps from limb to limb  
While I chatter back to him:  
"Thee, thee, thee,  
They, they, they."

—Unknown

#### 4. FRONT-TONGUE SOUNDS

Made by blocking the air stream with the front of the tongue against the roof of the mouth and then dropping the tongue.

*T*

table	butter	it
take	pretty	pet
tell	star	feet

Put the butter on the table.

The star tells its story.

#### THE NURSERY CLOCK

The nursery clock hangs high on the wall,  
Tick-tock, tick-tock;  
And every morning I hear its voice call—  
Tick, tick, tock!

High on the wall it is running all day,  
Tick-tock, tick-tock;  
Ticking the minutes and seconds away—  
Tick, tick, tock!

Each morning it hustles me out of my bed,  
Tick-tock, tick-tock;  
At evening it's ticking while prayers are said—  
Tick, tick, tock!

—From “Choral Arrangements  
for the Lower Grades,” LOUISE ABNEY.  
Expression Co., 1937.

dinner	birdie	bad
dog	candy	glad
dish	good-by	head

The birdie was glad to eat from the dish.

Good-by to dinner and off to bed.

### THE GAY LITTLE CRICKET

The gay little cricket is singing today,

“Tee-dee, tee-dee, tee-dee!”

He rubs his wings and sings this way :

“Tee-dee, tee-dee, tee-dee!”

The gay little cricket is singing all day,

“Tee-dee, tee-dee, tee-dee!”

He sings at work and sings at play,

“Tee-dee, tee-dee, tee-dee!”

—BARROWS AND HALL, “Games and  
Jingles for Speech Development.”  
Expression Co.



## N

A nasal front-tongue sound. While the front of the tongue is blocking the air stream in the mouth, the air is allowed to pass out through the nose.

next	pony	man
noise	snow	ten
nut	tiny	robin

The pony made the noise of ten.

The robin ate the tiny nut.

### FOG HORNS

When it's foggy on the bay,

N.....

Then the fog horns blow this way,

N.....

When it's foggy late at night,

N.....

Fog horns blow till it is light,

N.....

—BARROWS AND HALL, "Games and  
Jingles for Speech Development."  
Expression Co.

## S

Front tongue sounds made by the air stream being forced to strike the cutting edge of the front teeth by raising the tongue on the sides leaving only a narrow channel down the center, and pointing the tip at the front teeth without touching them.

sea	rest	ice
so	asleep	grass
soon	fast	horse

The sea-horse was fast asleep.  
The ice in grass will soon melt.

### SAMMY, SAMMY, SAM

Sammy, Sammy Sam  
Is eating bread and jam.  
"Give me a bite," says Sue.

Says Sam, "All right,  
I'll give you a bite,  
I'll even give you two!"

—OLIVE BEAUPRE MILLER (Jack & Jill)

## Z

zoo	scissors	as
zebra	trousers	those
zinc	husband	because

The scissors were made of zinc by my husband.  
Because of those zebras in the zoo.

### AIRPLANE

Whenever I hear  
Up in the sky,  
Z-z-z-z-z-M-m-m-m-m  
I know an airplane  
Is flying by,  
Z-z-z-z-z-M-m-m-m-m.

—(Unknown)

## SH

With the tongue in very much the same position as for Z and S broaden the passageway down the center of it, flatten the tip of the tongue a little. The lips are protruded and rounded.

sheep	sunshine	fish
ship	ashamed	wish
she	seashore	dish

The fish on the seashore made a fancy dish.

The sheep wished they could find some sunshine.

### HUSH BABY HUSH

Sh! Sh! Sh!  
Hush, baby hush!  
Shut your sleepy eye,  
Hush, baby hush!  
By-lo, baby, by!

Sh! Sh! Sh!  
Hush, baby hush!  
Mother's here, near by.  
Hush, baby hush!  
By-lo, baby, by!

—BARROWS AND HALL, "Games and  
Jingles for Speech Development."  
Expression Co.



ZH

(appears only in the middle of words.)

measure

leisure

azure

Stay at your leisure under an azure sky.

Measure the wall for pleasure.

PUTTING OUT THE FIRE

The firemen turn the water on,

ZH .....

The flames leap up ; the firemen shout !

ZH .....

The water beats against the wall,

ZH .....

The flames die down ; the fire is out !

ZH .....

## *TSH*

Combination sounds—In these add the sound “t” to the “sh” and produce *TSH* or *CH*; add the “d” to the “zh” and produce *CZH* or *J*.

chair	teacher	each
chicken	picture	much
child	kitchen	watch

The teacher watches from the chair.  
The child was in the kitchen every day.

## THE TOY TRAIN

My little train runs on a track.  
Choo, choo, choo!  
And we go on a trip today,  
Choo, choo, choo!

The whistle toots! The bell I ring!  
Choo, choo, choo!  
And here we go upon our way!  
Choo, choo, choo!

—BARROWS AND HALL, “Games and  
Jingles for Speech Development.”  
Expression Co.

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## *J*

jump	pigeon	package
just	cabbage	bridge
jaw	gingerbread	cage

The pigeon jumped out of the cage.  
Just put the package of cabbage down.

## MR. JUMPING JACK

Mr. Jumping Jack is a very funny man,  
He jumps and jumps as fast as he can,  
His arms fly out, his feet fly too  
Mr. Jumping Jack, How do you do?

—Unknown  
Published by Expression Co.

## R

The "r" sound is made by the tip of the tongue pointing towards the palate with its sides held high and touching the teeth—the sound is made while the tongue tip moves upward or downward from that position.

rabbit	garden	car
rain	farmer	door
red	pretty	fire

The farmer saw the red car.

The pretty rabbit ran through the door.

### SUMMER RAIN

Rap-a-tap-tap  
Comes the summer rain ;  
Rap-a-tap-tap  
On the window pane,

Rap-a-tap-tap  
It is waking the flowers ;  
Rap-a-tap-tap  
Come the summer showers.

—From "Choral Speaking Arrangements  
for the Lower Grades," LOUISE ABNEY,  
copyright 1937, Expression Co.

## L

The "l" is made by touching the tongue tip to the gum behind and above the upper teeth—the sound comes out over the sides of the tongue.

lion	balloon	shall
live	sleep	bell
left	blue	full

The blue bell was left behind.

The full balloon was tied to the lion.

### LITTLE WIND

Little wind, blow on the hilltop  
Little wind, blow down the plain  
Little wind, blow up the sunshine  
Little wind, blow off the rain.

—(Unknown)



## 5. BACK-TONGUE SOUNDS.

Made by blocking the air stream with the back of the tongue against the soft palate and then dropping the tongue and releasing the air.

### K

kitten	monkey	book
kite	sky	stick
cup	school	snake

The kite looks like a book in the sky.

The kitten and the monkey were on a stick.

### BIDDY HEN AND YELLOW DUCK

Biddy Hen said  
"Cluck! Cluck! Cluck!  
I do not like you,  
Yellow Duck!"

—(Unknown)

---

### G

good	began	pig
game	sugar	dog
garden	together	leg

The dog ate the sugar in the garden.

The good pig had his leg tied.

### MY LITTLE PONY

Go, my little pony, go!  
Go! Go! Go!  
Go, my little pony, go!  
Go! Go! Go!

Gallop, pony, gallop, go!  
Go! Go! Go!  
Go, my little pony, go!  
Go! Go! Go!

—BARROWS AND HALL, "Games and  
Jingles for Speech Development."  
Expression Co.

(A nasal back-tongue sound. While the back of the tongue is blocking the air stream by touching the soft palate, the air is allowed to pass out through the nose.)

(Only appears in the middle or at the end of words)

finger	morning
angry	thing
hungry	stocking

The morning air makes me hungry.

Feel the stocking with your finger.

## THE "h" SOUND

The so-called "h" sound is not a true sound, it is only whispered beginning to any vowel—it only appears before vowels either in the beginning or the middle of words.

hen	behind
hello	perhaps
honey	unhappy

He had the honey behind him.

Perhaps the hen was unhappy.

## B. VOWEL SOUNDS

There are five vowel letters in the English alphabet, a, e, i, o, u. These letters are commonly spoken in eleven different ways, therefore we have eleven common vowel sounds in English. Because the important problem you face is to teach your child to speak correctly and because the child with a cleft palate rarely has trouble with his vowels if he can make oral sounds at all, we simply list the vowels for you and you can teach them if you think it is necessary. The order in which we list the vowels is from the front of the mouth to the back, first the long vowels, then the short one.



## 1. VOWELS

SOUND	EXAMPLES		
e	eat	meat	be
	Eat meat and be happy.		
a	apron	baby	play
	The baby plays with the apron.		
ah	on	box	mama
	Mama put her hat on the box.		
aw	all	ball	saw
	They all saw the ball.		
o	over	boat	go
	They saw the boat go over.		
oo	school	room	you
	You sweep the school room.		
i	it	ship	stick
	Stick it in your ship.		
e	egg	bell	set
	Set the egg on the bell.		
a	at	cat	back
	The rat got back at the cat.		
oo	put	cook	book
	Put it in your cook book.		
u	up	cup	nut
	Fill up the cup with nuts.		

## 2. VOWEL COMBINATIONS

Sometimes vowels do not stand alone. When they are combined they become either diphthongs, two vowels merged into one, or glides, two vowels each being pronounced. We have these three diphthongs in the English language.

### DIPHTHONGS

ah-i	ice	five	buy
	Buy five pounds of ice.		
<hr/>			
ah-oo	our	house	cow
	Our cow was behind the house.		
<hr/>			
aw-i	oil	noise	boy
	The boy heard a noise as he put in the oil.		

### GLIDES

w (glide from the vowel  $\overline{o}$  as in oozing to the next sound in the word)

We:  $\overline{o}$  glide to e or  $\overline{o}$ -e

Will:  $\overline{o}$  glide to il or  $\overline{o}$ -i-l

Y (glide from the vowel  $\overline{e}$  as in even to the next sound in the word)

yet:  $\overline{e}$  glide to ě-t or  $\overline{e}$ -ě-t

you:  $\overline{e}$  glide to  $\overline{o}$  or  $\overline{e}$ - $\overline{o}$

The important thing to remember in the vowel combination is that both sounds have value and cannot be pronounced by saying only the first of the two.

## CHAPTER IV

### ASSOCIATED PROBLEMS OTHER THAN SPEECH

#### A. INTRODUCTION

**C**LEFT palates, unfortunately, bring along with them many other problems. Each one must be cared for in order to be of the most help to your child, since they are all related. In this chapter, we can do little more than explain to you what they are and urge you to have them taken care of.

##### 1. *Cleft Lip*

When it is discovered at birth that a child's lip is split, unformed or incomplete, the condition is called a cleft lip. This frequently occurs in children with a cleft palate. Usually a cleft lip is closed early in the child's life. Following the closure, scar tissue forms during healing, which affects both his speech and his appearance. In speech the lip must have freedom of movement, and the bulky scars make it stiff and unmovable. The lip can be affected in three ways: First, it may become attached to the gum; second, the scar may be thick and the lip therefore unable to move. For each of these conditions there is a proper exercise that will assist in reducing the scar. When the lip is attached to the gum, place the first finger between the lip and the gum against the scar and push upward. Do this ten times each day. This exercise will prevent the lip from becoming attached to the gum and will help in making the lip freely movable. When the lip has healed unevenly, stretching and pulling the shortened part will aid in making it more even. For the most common condition, the bulky scar, massage is advised. First, place your finger on the scar and rotate the scar and the skin under your finger against the gum; be careful to rub the scar, not the skin, since rubbing the skin is of no value and may cause an irritation. This massage should feel exactly as though you were kneading away a lump. Another massage exercise is to have the child lie down on his back; stand at his head, take hold of the upper lip with both hands and rub the scar between your fingers, much as though you were rubbing out a spot. These massages will tend to reduce the scar to a thin white line and will also increase the freedom of the lip, thus benefiting both speech and appearance. The child can help to make the lip more flexible by learning to run his tongue under his lip, pushing it forward as he does so, and by repeating the sounds oo-ee oo-ee (oo as in oozing and ee as in even) exaggerating the lip move-



ment in each. These exercises should be begun as soon after operation as your surgeon permits.

The foregoing sections of the book have dealt entirely with the very necessary operations and training that a child with cleft palate and cleft lip must have to insure normal speech. As the child grows up, however, you must realize that appearance also will play an important part in his life. The natural disfigurement from a cleft lip is the scarred upper lip, the withdrawn upper lip, and at times the protruding lower lip. Occasionally a child with a cleft palate may have a mis-shapen nose because of the defects in the development of the face region. It is very important for the future happiness and social adjustment of your child to have these defects remedied by a competent plastic surgeon as soon as he deems it advisable. Consult him early, before the fifth year. Much of your child's welfare depends upon your conscientious cooperation with your surgeon and dentist.

## 2. *Dental Problems*

One of the important responsibilities in the care of a child with a cleft palate is the attention that must be given to the teeth. In almost every case, when a child is born with an unformed roof to his mouth, dental conditions will be present which require the advice and services of a good dentist. These dental problems are of three types. First, decay of the teeth due to neglect or to the fact that some teeth are not as strong as others. This condition is common to many children and should always be cared for, but it is even more important that it be cared for in the child with a cleft palate. The loss of a tooth in a mouth that is not normal in development may lead to very serious changes in the dental arch and may have a lasting effect upon the way in which the permanent teeth grow. In addition, dental neglect and lost teeth may interfere with proper chewing of food. Secondly, the child with a cleft palate frequently has one or more teeth missing due to the same lack of development which led to the cleft of the palate. When teeth are missing because of their failure to develop or, as has already been mentioned, because of neglect, many chewing surfaces are lost. Also, the missing teeth permit the remaining ones to shift or change their position which likewise has an effect upon the chewing surfaces, while speech may be affected because of the open spaces between the teeth. The third common dental problem is the abnormal way in which the upper and lower teeth come together. Frequently the upper teeth which should always overlap the lower ones, at least in part, do not do so and are behind the lower

teeth. The failure of the roof of the mouth to join and grow properly causes this under-development of the upper jaw. It is this condition which results in the withdrawn upper lip that affects the appearance of the child. Also, when this occurs the tongue which should be entirely within the mouth cavity without protruding, seems too large for the reduced size of the upper dental arch, and this, of course, affects both speech and appearance.

There is only one thing that you can do for these problems. Visit a good dentist and do so early in your child's life. We suggest that a visit to your dentist is important by the time the child is two years old. By proper care the dentist can save the teeth from decay and guide their development.

### 3. *Mechanical Aids*

Some cleft palates cannot be closed by operation because the gap is too large and because there is too little tissue in the mouth. Sometimes the palate may be closed by operation and then come open again through no one's fault, but because there is just too little tissue present to help in the closing.

The unsuccessful closures that result may be lasting. Some palates cannot be closed no matter what the surgeon may do. When this condition is finally accepted by the surgeon, you must ask him about other means of accomplishing the same or nearly the same result. This can be done by having an artificial plate made that will cover the roof of the mouth and that will look and fit much as do the plates that are used for artificial teeth. They can be made of many materials, from hard rubber to a new substance through which you can see. You must remember that these artificial palates are second choice only and although they are unquestionably better than having the openings, they are not as good as a palate that has been repaired properly for the latter have movement and life while the manufactured ones are stiff and do not move.

The technical name for an artificial plate that closes the opening in a cleft palate is "obturator." The time to think of having one made is just as soon as you are told that a surgical repair cannot be successfully done.

Remember that children grow during the first fifteen or sixteen years of their lives and as you know they outgrow everything you buy for them. The mouth region grows right along with the rest of the body and these manufactured plates will need changing and adjustments about as often as the child needs to change the size of his shoes. Remember that you don't hesi-

tate to buy shoes for your child because he is going to outgrow them. Likewise, do not hesitate to give your child the best fitting plate possible because of the bother and expense of keeping it fitted.

It is most important to remember all the reasons that make it necessary to have a roof to the mouth and every reason which justifies repairing the palate applies equally to getting a well fitted plate.

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## CHAPTER V

### EDUCATIONAL AND PSYCHOLOGICAL CONSIDERATIONS

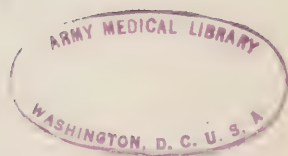
You have read the story of the child with cleft palate. The earlier chapters have listed the major problems and have suggested what you can do about each one of them. You must realize that your child will begin life under a handicap because of a physical shortcoming. It is your task to see that this handicap is overcome in the way that it is best for the child. There is no reason to regard him as a problem; he is normal in every respect other than in his under-developed palate. It is up to you to see to it that he is treated as a normal child. His social education, his discipline, his attitude toward you as his parents, and toward his brothers and sisters should be normal and it will be if you make it so with proper care and guidance. Do not pamper or baby him; make him an independent child. By too much sympathy and overwatchfulness he will become spoiled. By giving in to him as he complains you will destroy his self-reliance. By doing things for him that he can do for himself, you make him dependent on you. Do not talk about his difficulties when he is present; he will learn early enough in life that his speech and his looks (if they are affected) are different. Prepare him to stand on his own two feet and to take the knocks of life as they come to him, just as you would with any other child. Experience is the child's best teacher. From the very beginning the child must learn that it is "up to him." This encourages independence and self-reliance. Although it is true that he may have to be "specially" fed for a time, yet make eating "his business" and not something for you to worry and fuss about.

It is to his advantage that he will have met many strangers early in life. For throughout his operative days he will come to know his doctors, nurses, attendants and speech therapist. They



will all be kind to him and encourage his every effort. Your task will be to continue the good work of the hospital upon his return home.

During the development of speech you must remember to speak slowly and distinctly to him, for he learns to speak partly in imitation of you. Bring gentle pressure to bear upon him if he substitutes sounds, follow the suggestions of the chapter on speech in this regard. Remember that certain sounds are not properly made because he actually cannot make them, not because he does not want to. Be careful that you do not urge him to correct his speech when he cannot, for this will only lead to a feeling of hopelessness on his part. Children that are constantly urged to do things they cannot do, even if they try, become moody, nervous children. Guard against this. Train your child to understand his problem. Point out to him that none of us are perfect, some have weak eyes and wear glasses, others have crippled feet and cannot walk, others cannot hear, but all of us can try cheerfully to do our very best with what we have. If you train him to have courage—if you let him develop a sense of responsibility and an ability to take care of himself—if he can get along with others, then there is no reason why he cannot be a healthy, normal child. Deny him these opportunities by your over-protection or your improper training and poor guidance and he will be withdrawn, selfish, temperamental and spoiled. Your responsibility and desire is to raise a child who will be a credit to you and to your community. You can accomplish this through knowledge and patience.





## CHAPTER VI

### CONCLUSION

As a brief reminder of what to do, follow this outline. Check off the things you do as you do them.

1. Consult your physician about an operation or follow his advice if it has been given to you.
2. After the operation for cleft palate or cleft lip or both, obtain and carry out advice on *Massage*, *Exercises*, and *Speech Training*.
3. Check with your dentist on dental conditions, relative to the cleaning, filling, removing or straightening of teeth.
4. If operations have been tried unsuccessfully, see about an obturator or plate for the roof of the mouth.
5. Keep in touch with your doctor about further operations for your child's appearance. Do not delay—personality develops every single day—face your problems and they will be solved.









